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# PROCEEDINGS

OF THE

BIOLOGICAL SOCIETY OF WASHINGTON

## ON SIX NEW LITHOBIID CENTIPEDS FROM NORTH CAROLINA.

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The types of the species of Lithobiidae here described as new were in extensive material collected by Mrs. Nelle Bevel Causey, of Duke University, in North Carolina, chiefly in the Duke Forest and other areas adjacent to Durham. The types are retained in the author's collection.

### Nampabius mycophor, new species.

General color of dorsum light brown, the head and antennae darker, chestnut, the antennae paler distally; legs yellowish.

Antennae normal. Ocelli 1+3, 3, 4, 2.

Prosternal teeth 2+2, the line of apices recurved; median sinus semicircular.

Ventral spines of first legs, 0, 0, 0, 0, 0; of the second legs, 0, 0, 0, 0, 1. Ventral spines of penult and anal legs, 0, 1, 1, 1, 0; dorsal, 0, 0, 2, 0, 0. Dorsal spines of tenth and eleventh legs, 0, 0, 0, 2 (1), 1.

Process of penult legs of male longer, with base narrower, than in *tennesseensis*, somewhat fungiform.

Claw of female gonopods tripartite; basal spines 2+2.

Length, 8 mm.

Locality.--North Carolina: Duke Forest. A male and female taken Sept. 15, 1939.

A species related to N. *tennesseensis* but a larger form, the length being 8 mm. as against 6.5 mm. Also differing in the form of the process on the penult legs of male as indicated above.

#### Paitobius eutypus, new species.

Dorsum a rather dark brown throughout. Antennae rufous distally. Legs brown. Prosternum brown, the venter a lighter brown.

Antennae in type consisting of 32 articles. Ocelli 1+3, 4, 3, 1; the single ocellus contiguous and enlarged as usual.

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Prosternal teeth 2+2, with the mesal one on each side larger in typical way and line of apices thereby recurved.

Posterior angles of 9th, 11th and 13th dorsal plates produced.

Ventral spines of first and second legs, 0, 0, 1, 2, 1. Ventral spines of penult legs, 0, 1, 3, 3, 2; dorsal, 1, 0, 3, 1, 1; claws 2. Ventral spines of anal legs, 0, 1, 3, 1, 0; dorsal, 1, 0, 3, 1, 0; claw single. Last two pairs of coxae laterally armed.

Coxal pores 4, 5, 5, 4.

Anal legs in male inflated, especially the fourth joint, which is longitudinally forrowed above.

Length, 11 mm.

Locality.-North Carolina: Linville. One male taken 14 Oct., 1939.

Differing from *naiwatus* in having the ventral spines of the anal legs 0, 1, 3, 1, 0 instead of 1, 0, 3, 2, 1, and the last two pairs of coxae instead of only the last pair laterally armed. It is also a considerably larger form.

### Taiyubius dux, new species.

The general color above is light horn brown.

Antennae of moderate length; composed in the type of 26 articles. Ocelli 1+3, 2, the single ocellus and the posterior ocellus of the upper row enlarged and subequal.

Prosternal teeth small and pale, 2+2, the line of apices a little recurved. Ventral spines of first and second legs 0, 0, 0, 0, 1. Third joint of only a few of the last pairs of legs with 3 dorsal spines, most of the others with but 1. Ventral spines of penult legs 0, 1, 3, 2 (1), 1; dorsal, 1, 0, 2, 1, 1, the claw double. Ventral spines of anal legs 0, 1, 3, 1, 0; dorsal, 1, 0, 2, 1, 0, the claw double. None of the coxae laterally armed.

Coxal pores small, 2, 3, 3, 2.

Length, 7 mm.

Locality .-- North Carolina: Linville. One male, 14 Oct., 1939.

This species is placed in *Taiyubius* on the basis of the recurved line formed by the prosternal teeth. It differs from other known species in its small size and the spining of the legs.

#### Nadabius saphes, new species.

Dorsum light horn brown, with head, antennae and posterior legs orange.

Antennae short. Ocelli in a narrow patch, 1+4 (3), 3, 2.

Prosternal teeth small, pale, 2+2.

Ventral spines of first legs 0, 0, 0, 2 (1), 1. Ventral spines of penult legs, 0, 1, 3, 2, 1; dorsal, 1, 0, 2, 1, 0; claw single. Ventral spines of anal legs, 0, 1, 3, 2, 0; dorsal, 1, 0, 2, 0, 0; claw single. None of the coxae laterally armed.

The special dorsal lobe of fifth joint of anal legs in male of the typical general form; low and located on mesodorsal side of joint.

Coxal pores small and few, 2, 3, 3, 2.

Length, about 8 mm.

Locality .-- North Carolina: Duke Forest. One male taken 18 Oct. 1939.

#### Nadabius waccamanus, new species.

Color brown, the head and antennae darker, more nearly chestnut; legs lighter brown.

Ocelli 1+3, 3, 2. Articles of antennae moderate in length.

Prosternal teeth 4+4; the line of apices nearly straight; median sinus V-shaped as usual.

Ventral spines of first and second legs 0, 0, 0, 0, 1; of tenth and eleventh legs, 0, 0, 0, 3, 2; of twelfth legs, 0, 0, 2, 3, 2. Ventral spines of thirteenth legs, 0, 0, 2, 3, 2; dorsal, 0, 0, 3, 2, 2. Ventral spines of fourteenth legs, 0, 1, 3, 3, 2; dorsal, 0, 1, 3, 1, 1; claws 2. Ventral spines of anal legs, 0, 1, 3, 3, 1; dorsal, 1, 0, 3, 1, 0; claws 2.

Coxal pores 4 (3), 4, 4, 4 (3).

Claw of female gonopods tripartite, the lateral lobes small; basal spines 2+2.

Length, 10 mm.

Locality.—North Carolina: Lake Waccamaw. One female taken Sept. 24, 1939.

In the absence of the male this form is referred to *Nadabius* with some doubt. It differs from previously known species of *Nadabius*, excepting *saphes*, in having none of the posterior coxae laterally armed and only the last two pairs dorsally armed. It differs from *saphes* in having a double claw on the anal legs.

#### Lithobius apheles, new species.

Dorsum, antennae and last legs brown, the other legs a lighter brown.

Antennae moderately long; articles 35. Ocelli 1+4, 4, 4, 3.

Prosternal teeth 3+3; median sinus narrowly V-shaped.

Posterior angles of 9th, 11th and 13th dorsal plates produced.

Ventral spines of first legs, 0, 0, 1, 2, 1. Ventral spines of penult legs, 0, 1, 3, 3, 2; dorsal, 1, 0, 3, 1, 1; claws 3. Ventral spines of anal legs, 0, 1, 3, 3, 1; dorsal, 1, 0, 3, 1, 0; claws 2. Last three pairs of coxae dorsally armed, last two pairs laterally armed.

Coxal pores small, circular, 4, 5, 5, 5.

Posterior legs of male not specially modified.

Length, about 11 mm.

Locality.-North Carolina: Linville. One male taken Oct. 14, 1939.

Differing from other species of the eastern part of the United States in having the anal legs with two claws. The Californian L. chumasanus has two claws on the anal legs but is a much larger form.

